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北京大学数学科学学院 科学与工程计算系

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教育背景

1988 - 1992	博士研究生	北京大学数学科学学院	导师:应隆安教授
1984 - 1988	学士	北京大学数学系	

工作经历

2020 -	北京大学科技创新研究院院长
2019 -	北京大学副校长
2018 -	大数据分析与应用技术国家工程实验室主任
2019 - 2021	北京大学大数据科学研究中心主任
2018 - 2019	北京大学科学与工程计算中心主任
2015 - 2019	北京大学学科建设办公室主任
2013 - 2015	北京大学数学科学学院常务副院长
2010 - 2017	数学及其应用教育部重点实验室主任
2008 - 2012	北京大学数学科学学院副院长
2008 - 2012	北京大学数学科学学院副院长
2008 - 2010	数学及其应用教育部重点实验室副主任
2001 - 2018	北京大学科学与工程计算中心常务副主任
1999 - 2008	北京大学数学科学学院科学与工程计算系主任
1996 -	北京大学数学科学学院教授
1994 - 1996	北京大学数学科学学院副教授
1992 - 1994	北京大学数学科学学院助理教授

研究领域

- 软物质（复杂流体）的建模和计算
- 应用分析和数值计算
- 大数据分析与应用

荣誉与奖励

2020	工业和应用数学学会会员
2016	发展中国家科学院院士
2015	中国科学院院士
2014	国家自然科学基金二等奖

2014	国家自然科学基金创新研究群体项目学术带头人
2010	北京市师德标兵
2007	教育部高校科学技术奖自然科学一等奖
2002	国家自然科学基金杰出青年科学基金
2002	长江学者
1999	冯康科学计算奖

学术兼职

2016 -	中国工业与应用数学学会（CSIAM）理事长，学术委员会主席
2015 -	“大规模科学与工程计算”国家重点实验室，学术委员会副主任
2006 -	北京应用物理与计算数学研究所计算物理实验室，学术委员会副主任
2001 - 2006	“大规模科学与工程计算”国家重点实验室，学术委员会副主任
2010 - 2014	中国计算数学学会，副理事长
2002 - 2006	中国计算数学学会，副理事长
2005 -	吉林大学，兼职教授
2004 -	湘潭大学，兼职教授
2004 -	苏州大学，兼职教授
1999 - 2001	清华大学，兼职教授

学术交流

2004.03-05	普林斯顿大学应用和计算数学系，访问学者，美国
2002.01-02	普林斯顿大学应用和计算数学系，访问学者，美国
2001.01-02	香港科技大学数学系，访问学者
1999.07-08	加州理工大学应用数学系，访问学者，美国
1999.05	香港浸会大学数学系，访问学者
1998.09-1999.02	香港浸会大学数学系，访问学者
1997.11-1998.08	加州理工大学应用数学系，访问学者，美国
1996.04	香港中文大学数学系，访问学者
1995.02-11	加州理工大学应用数学系，访问学者，美国
1993-1996:	计算物理国家实验室，访问副教授

杂志编委

2020 -	CSIAM Transactions on Applied Mathematics
2002 -	Applied Mathematical Research Express (AMRX)
2014 -	Multiscale Modeling & Simulations
2010 -	Advances in Mathematics (CHINA)
2004 -	Chinese Journal of Computational Mathematics (CJCM)
2004 -	Chinese Journal of Computational Physics (CJCP)
2007 -	Chinese Journal of Engineering Mathematics
2006 -	Chinese Journal of Mathematics

2004 -	Chinese Northeast Mathematical Journal
2005 -	Communications in Computational Physics (CiCP)
2005 -	Communication in Mathematical Sciences (CMS)
2006 -	International Journal of Nonlinear Science (IJNS)
2007 -	Journal of Computational Mathematics (JCM)
2005 -	Journal of Information and Computational Science (JICS)
2010 -	Applied Mathematics and Mechanics (AMM)
2011 -	Journal of Mathematics in Industry (JMI)
2012 -	Discrete and Continuous Dynamical System - B (DCDS-B)

主办会议

- The 8th International Congress on Industrial and Applied Mathematics (ICIAM 2015), 学术子委员会主席, 北京, 2015.8.10-14.
- Frontiers of Applied and Computational Mathematics, 北京, 2015.8.7-9.
- Workshop of Mathematical Analysis, Modeling and Computations on Liquid Crystals and Related Topics, 北京, 2015.8.8-9.
- One-Day Workshop on Mathematical Theory of Liquid Crystals, 北京, 2014.9.29.
- Northeastern Asian Symposium on Methods and Modeling for High Performance Scientific Computing, 2013.9.22-25.
- Modeling and Mathematical Theory of Phase Transition, 北京大学, 2011.12.31.
- The First Cross-straits Workshop on Computational Mathematics, 厦门, 2010.8.3-6.
- Computational Problems in Material Sciences, 苏州, 2010.8.2-4.
- Workshop on Numerical Methods of PDEs, 广州, 2010.7.28-31.
- The 7th International Conference on Scientific and Applications, 大连, 2010.6.13-16.
- China-Germany Conference on "Mathematics and Industry", 北京, 2010.3.15-17.
- The 5th China-Italy Conference on Computational and Applied Mathematics, Mathematical models in Life Science: Theory and Simulation, 意大利, 罗马, 2009.11.
- International Workshop on Quantum Systems and Semiconductor Devices: Analysis, Simulations, Applications, 北京, 2009.04.
- Rheology of complex fluids: Modeling and Numerics, 法国, 巴黎, 2009.01.
- Multiscale Modeling of Complex Fluids专题活动, 北京大学, 2007.09-2008.05
- Multiscale Modeling of Complex Fluids, University of Maryland, 2007.04
- Mathematical and numerical modeling of nanoscale devices暑期学校, 北京大学, 2005.06-07.
- Adaptive method and applications暑期学校, 北京大学, 2005.06-08.
- Scientific Computing and Applied Mathematics暑期学校, 北京大学2005.06-08.
- International conference on multiscale modeling and scientific computing, 北京大学, 2005.06.
- Mathematical models in life sciences: Theory and Simulation, 北京大学, Jun. 2005.
- Summer School of Scientific Computing and Applied Mathematics, 北京大学, Jul.-Aug. 2003.
- Summer School of Scientific Computing and Applied Mathematics, 北京大学, Aug.-Sept. 2003.
- The Second Chinese-Korean Joint Workshop on Recent Advances in Numerical Analysis and Its applications, 北京, 2003.02.
- Summer School of Scientific Computing and Applied Mathematics, 清华大学, 2002.07-08
- The 10th conference on Computational Methods of Fluid Mechanics (会议主席), 云南昆明, 2001.08.
- International symposium on computational & applied PDEs, 张家界, 2001.06.
- International conference on scientific & engineering computing (会议主席), 北京大学, 2001.03.

- Workshop on Numerical PDE, 北京大学, 1996.
- Overseas Chinese Computational Physics Conference, 北京, 1996.
- The 6th conference on Computational Methods of Fluid Mechanics (会议秘书), 山东大学, 1993.

邀请报告

- 2018 International Congress of Mathematicians (ICM2018), 北京, 2018
- The 9th International Conference on Computational Physics, 新加坡, 2015.1.7-11.
- International Conference on Optimization, Sparsity and Adaptive Data Analysis, 北京, 2015.3.18-21.
- The 2014 SIAM Annual Meeting (AN14), Chicago, Illinois, USA, 2014.7.7-11.
- Robust Discretization and Faster Solvers for Computable Multi-Physics Models, ICERM, Brown University, 2014.5.12-16.
- The 5th International Conference on Scientific Computing and PDEs, 香港, 2014.12.8-12.
- International Conference on PDE, 广州, 2013.12.6-10.
- 2013 Northeastern Asian Symposium on Methods and Modeling for High Performance Scientific Computing, 成都, 2013.9.22-25.
- 2013 International Conference on Mathematical Modeling and Computation, 武汉, 2013.5.15-19.
- Nonlinear analysis of continuum theories: statics and dynamics, Oxford, 2013.4.8-12.
- Symmetry, bifurcation and order parameters, Cambridge, 2013.1.7-11
- Multiscale Modeling, Simulation, Analysis and applications, 新加坡, 2012.1.9-13.
- International Conference on Scientific Computing, 香港, 2012.1.4-7.
- 7th International Congress on Industrial and Applied Mathematics, Vancouver, 2011.7.18-22.
- International Conference on Interdisciplinary Applied Mathematics and Computational Mathematics, 浙江, 2011.6.17-21.
- Sino-French Workshop on Contemporary Applied Mathematics, 上海, 2011.7.4-8.
- International Conference on Applied Mathematics and Interdisciplinary Research, 天津, 2011.6.13-16.
- Kinetic and Fluids, 北京, 2010.07.
- The 5th China-Italy Conference on Computational and Applied Mathematics. Mathematical models in Life Science: Theory and Simulation, Roma, Italy, 2009.09
- The 3rd Chinese-German Workshop on Computational and Applied Mathematics, Heidelberg, Germany, 2009.9.28 – 10.2.
- International Workshop on Continuum Modeling of Biomolecules, 北京, 2009.09
- Mathematical Theory and Numerical Methods of Computational Materials simulation and Design, 新加坡, 2009.08.
- International Conference on Mathematical Theory and Applications of Liquid Crystal, Ferromagnetism and Related Topics, 广州, 2009.06.
- Computational Multiscale Methods, Oberwolfach, Germany, 2009.06.
- International Workshop on Quantum Systems and Semiconductor Devices: Analysis, Simulations, Applications, 北京, 2009.04.
- Adaptivity, Robustness and Complexity of Multiscale Algorithm, Edinburgh, England, 2009.03.
- Rheology of complex fluids: Modeling and Numerics, 法国, 巴黎, 2009.01.
- The 6th International Conference on Scientific Computing and Applications, Busan, Korea, 2008.06.
- Workshop on the Foundations of numerical PDEs (FoCM), 香港, 2008.06.
- Workshop on Nanoscale Interfacial Phenomena in Complex Fluids, 北京, 2008.06.
- Canada-China workshop on industrial mathematics, Banff, Canada, 2007.08.
- Multiscale Modeling of Complex Fluids, Maryland, 2007.04.
- International Workshop on Multiscale Analysis and Applications, 新加坡, 2006.11.

- The Symposium on Multi-physics and Multi-Scale Computation of Materials-2006, 西安, 2006.11.
- International Conference on PDE and Numerical Analysis, 长沙, 2006.06.
- Workshop on Multiscale Modeling of Complex Fluids, 北京, Jun. 2006.06.
- International Conference on Recent Advances in Scientific Computations, 北京, 2006.06.
- International Conferences on Applied Mathematics and Interdisciplinary Research, 天津, 2006.06.
- International Symposium on Polymer Physics, 苏州, 2006.06.
- Interfacial Dynamics in Complex Fluids, Banff, 加拿大, 2006.05.
- International Conference on Calculus of Variations, PDEs and Nonlinear Analysis, 北京, 2006.05.
- The second International Conference on Scientific Computing and Partial Differential Equations, 香港, 2005.11.
- The 1st China-Germany Workshop on Computational and Applied Mathematics, Berlin, Germany, 2005.09.
- International conference on scientific computing, 南京, 2005.06.
- International conference on multiscale modeling and scientific computing, 北京大学, 2005.06.
- Mathematical models in life sciences: Theory and Simulation, 北京, 2005.06.
- The 3rd joint Chinese-Korean Workshop on Recent Progresses on Numerical Analysis and Its Applications, South Korea, 2005.02.
- Nanoscale Material Interfaces: Experiment, Theory and Simulation, 新加坡, 2005.01。
- Workshop on Multiscale Rheological Models for Fluids, Montreal, 加拿大, 2004.11.
- International Conference on Numerical and Applied PDEs, 长春, 2004.06.
- International Conference on Frontiers of Applied Mathematics, 北京, 2004.06.
- The 2nd International Conference on Inverse Problem, 上海, 2004.06.
- International Workshop on Wave Propagations, 北京, 2004.06.
- International Conference on Superconvergence and A Posteriori Estimates in FEM, 长沙, 2004.05.
- International Conference of Scientific Computing, 北京, 2003.12.
- The 3rd China-Italy Joint Conference on Computational and Applied Mathematics, Grado, Italy, 2003.11.
- The 2nd Chinese-Korean Joint Workshop on Recent Advances in Numerical Analysis and Its applications, 北京, 2003.02.
- The Third International Workshop on Scientific Computing and Applications, 香港, 2003.01.
- ICM2002-Beijing Satellite Conference on Scientific Computing, 西安, 2002.08.
- The 11th International Conference of Fluid Dynamics and Soft Condensed Matter, 上海, 2002.08.
- Workshop on Multiscale Analysis and Computation, 台湾, 2002.06.
- The 3rd China-Sweden Workshop on Computational Mathematics Goteberg, 瑞典, 2002.06.
- International symposium on computational & applied PDEs, 张家界, 2001.06.
- International conference on scientific & engineering computing, 北京大学, 2001.03.
- The First Chinese-Korean Joint Workshop on Recent advances in Numerical Analysis and Its Applications, 韩国, 2001.02.
- The 2nd Sino-Italian Symposium on Computational and Applied Mathematics, Ischia, Italy, 2000.06.
- The 2nd China-Sweden workshop on Numerical Partial Differential Equations, 香港, 2000.01.
- Conference of Partial Differential Equation and Numerical Method in Mechanics, 香港, 1999.06.
- The First Sino-Italian Symposium on Applied and Computational Mathematics, 北京, 1998.12.
- China-Japan Symposium on Computational Mathematics, 大连, 1997.08.
- 96'Symposium on Computational Physics, Institute of Computational Mathematics and Applied Physics, 北京, 1996.06.
- Summer Research Seminars on Theory and Computations of Fluid Dynamics, 北京, 1994.06.

1. Jucen Han, Jianyuan Yin, Pingwen Zhang, Apala Majumdar and Lei Zhang, Solution landscape of a reduced Landau–de Gennes model on a hexagon, *Nonlinearity*, Vol. 34, No. 4, 2048-2069, (2021).
2. Wei Wang, Lei Zhang and Pingwen Zhang, Modeling and Computation of Liquid Crystals, *Acta Numerica*, , , 1-89, (2021).
3. Yucen Han, Jianyuan Yin, Pingwen Zhang, Apala Majumdar and Lei Zhang, Solution landscapes of nematic liquid crystals confined on a hexagon, *Materials Science*, , , (2020).
4. Chuansai Zhou, Wen Yuan, Jun Wang, Haiyong Xu, Yong Jiang, Xinmin Wang, Qiuzi Han Wen and Pingwen Zhang, Detecting Suspected Epidemic Cases Using Trajectory Big Data, *CSIAM Transactions on Applied Mathematics*, , , 186-206, (2020).
5. Jianyuan Yin, Yiwei Wang, Jeff Z. Y. Chen, Pingwen Zhang and Lei Zhang, Construction of a Pathway Map on a Complicated Energy Landscape, *Phys. Rev. Lett.*, Vol. 124, No. 9, , (2020).
6. Yucen Han, Yucheng Hu, Pingwen Zhang and Lei Zhang, Transition pathways between defect patterns in confined nematic liquid crystals, *JOURNAL OF COMPUTATIONAL PHYSICS*, , , 1-11, (2019).
7. Haochen Li, Yu, Chen, Jiangjiang Xia, Yingchun Wang, Jiang Zhu and Pingwen Zhang, A Model Output Machine Learning Method for Grid Temperature Forecasts in the Beijing Area, *Advances in Atmospheric Sciences*, Vol. 36, No. 10, 1156-1170, (2019).
8. Yongqiang Cai, Pingwen Zhang and An-Chang Shi, Elastic properties of liquid-crystalline bilayers self-assembled from semiflexible-flexible diblock copolymers, *SOFT MATTER*, Vol. 15, No. 45, 9215-9223, (2019).
9. Tian Tian, Han Wang, Wei Ge and Pingwen Zhang, Detecting Particle Clusters in Particle-Fluid Systems by a Density Based Method, *COMMUNICATIONS IN COMPUTATIONAL PHYSICS*, Vol. 26, No. 5, 1617-1630, (2019).
10. Jie Xu, Fangfu Ye and Pingwen Zhang, A TENSOR MODEL FOR NEMATIC PHASES OF BENT-CORE MOLECULES BASED ON MOLECULAR THEORY, *MULTISCALE MODELING & SIMULATION*, Vol. 16, No. 4, 1581-1602, (2018).
11. Jie Xu and Pingwen Zhang, Onsager-theory-based dynamic model for nematic phases of bent-core molecules and star molecules, *Journal of Non-Newtonian Fluid Mechanics*, Vol. 251, , 43-55, (2018).
12. Jiajie Chen, Pingwen Zhang and Zhifei Zhang, Local minimizer and De Giorgi's type conjecture for the isotropic–nematic interface problem, *calculus of Variations*, Vol. 57, No. 129, , (2018).
13. Yiwei Wang, Pingwen Zhang and Jeff Z. Y. Chen, Formation of three-dimensional colloidal crystals in a nematic liquid crystal, *SOFT MATTER*, Vol. 14, No. 32, 6756-6766, (2018).
14. Yixiang Luo, Jie Xu and Pingwen Zhang, A Fast Algorithm for the Moments of Bingham Distribution, *JOURNAL OF SCIENTIFIC COMPUTING*, Vol. 75, No. 3, 1337-1350, (2018).
15. Jie Xu and Pingwen Zhang, Calculating Elastic Constants of Bent-Core Molecules from Onsager-Theory-Based Tensor Model, *LIQUID CRYSTALS*, Vol. 45, No. 1, 22-31, (2018).
16. Weihua Deng, Buyang Li, Wenyi Tian and Pingwen Zhang, Boundary Problems for the Fractional and Tempered Fractional Operators, *MULTISCALE MODEL. SIMUL.*, Vol. 16, No. 1, 125-149, (2018).
17. Jie Shen, Jie Xu and Pingwen Zhang, Approximations on $SO(3)$ by Wigner D-matrix and Applications, *JOURNAL OF SCIENTIFIC COMPUTING*, Vol. 74, No. 3, 1706-1724, (2018).
18. Jie Xu and Pingwen Zhang, The Transmission of Symmetry of Liquid Crystals, *Communications in Mathematical Sciences*, Vol. 15, No. 1, 185-195, (2017).
19. Yiwei Wang and Pingwen Zhang, Topological Defects in an Unconfined Nematic Fluid Induced by Single and Double Spherical Colloidal Particles, *Physical Review E*, Vol. 96, No. 4, , (2017).
20. Yang Qu, Ying Wei and Pingwen Zhang, Transition of Defect Patterns from 2D to 3D in Liquid Crystals, *Communications in Computational Physics*, Vol. 21, No. 3, 890-904, (2017).
21. Kai Jiang, Pingwen Zhang and An-Chang Shi, Stability of Icosahedral Quasicrystals in a Simple Model with Two-Length Scales, *J. Phys. Condens. Matter*, Vol. 29, No. 12, , (2017).

22. Zhiyuan Geng, Wei Wang, Pingwen Zhang and Zhifei Zhang, STABILITY OF HALF-DEGREE POINT DEFECT PROFILES FOR 2-D NEMATIC LIQUID CRYSTAL, DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS, Vol. 37, No. 12, 6227-6242, (2017).
23. Jinhae Park, Wei Wang, Pingwen Zhang and Zhifei Zhang, On Minimizers for the Isotropic-Nematic Interface Problem, Calculus of Variations and Partial Differential Equations, Vol. 56, , , (2017).
24. Yongqiang Cai, Pingwen Zhang and An-Chang Shi, Liquid Crystalline Bilayers Self-Assembled from Rod-Coil Diblock Copolymers, Soft Matters, Vol. 13, No. 26, 4607-4615, (2017).
25. Dong An, Wei Wang and Pingwen Zhang, On equilibrium configurations of nematic liquid crystals droplet with anisotropic elastic energy, Research in the Mathematical Sciences, Vol. 4, No. 7, 6227-6242, (2017).
26. Yu Tong, Yiwei Wang and Pingwen Zhang, Defects Around a Spherical Particle in Cholesteric Liquid Crystals, Numerical Mathematics-Theory Methods and Applications, Vol. 10, No. 2, 205-221, (2017).
27. Jie Xu, Chu Wang, An-Chang Shi and Pingwen Zhang, Computing Optimal Interfacial Structure of Modulated Phases, Communications in Computational Physics, Vol. 21, No. 1, 1-15, (2017).
28. Kai Jiang, Jiajun Tong and Pingwen Zhang, Stability of Soft Quasicrystals in a Coupled-Mode Swift-Hohenberg Model for Three-Component Systems, Communications in Computational Physics, Vol. 19, No. 3, 559-581, (2016).
29. Shiwei Ye, Pingwen Zhang and Je Z.Y. Chen, Nematic ordering of semi-flexible polymers confined on a toroidal surface, Soft Matter, Vol. 12, No. 24, 5438-5449, (2016).
30. Yucheng Hu, Yang Qu and Pingwen Zhang, On the Disclination Lines of Nematic Liquid Crystals, Communications in Computational Physics, Vol. 19, No. 2, 354-379, (2016).
31. Kai Jiang, Jiajun Tong, Pingwen Zhang and An-Chang Shi, Stability of Two-Dimensional Soft Quasicrystals in Systems with Two Length Scales, Physical Review E, Vol. 92, No. 4, , (2015).
32. Wei Wang, Pingwen Zhang and Zhifei Zhang, The Small Deborah Number Limit of the Doi-Onsager Equation to the Ericksen-Leslie Equation, Communications on Pure and Applied Mathematics, Vol. 68, No. 8, 1326-1398, (2015).
33. Wei Wang, Pingwen Zhang and Zhifei Zhang, Rigorous Derivation from Landau-De Gennes Theory to Ericksen-Leslie Theory, SIAM Journal on Mathematical Analysis, Vol. 47, No. 1, 127-158, (2015).
34. Jiequn Han, Yi Luo, Wei Wang, Pingwen Zhang and Zhifei Zhang, From Microscopic Theory to Macroscopic Theory: a Systematic Study on Modeling for Liquid Crystals, Archive for Rational Mechanics and Analysis, Vol. 215, No. 3, 741-809, (2015).
35. Sirui Li, Wei Wang and Pingwen Zhang, Local Well-posedness and Small Deborah Limit of A Molecular-Based Q-Tensor System, Discrete and Continuous Dynamical Systems - Series B, Vol. 20, No. 8, 2611-2655, (2015).
36. Qin Liang, Kai Jiang and Pingwen Zhang, Efficient numerical schemes for solving the self-consistent field equations of flexible-semiflexible diblock copolymers, Mathematical Methods in Applied Sciences, Vol. 38, No. 18, 4553-4563, (2015).
37. Honghu Liu, Taylan Sengul, Shouhong Wang and Pingwen Zhang, Dynamic Transitions and Pattern Formations for a Cahn-Hilliard Model with Long-Range Repulsive Interactions, Communications in Mathematical Sciences, Vol. 13, No. 5, 1289-1315, (2015).
38. Kai Jiang, Weiquan Xu and Pingwen Zhang, Analytic Structure of the SCFT Energy Functional of Multicomponent Block Copolymers, Communications in Computational Physics, Vol. 17, No. 5, 1360-1387, (2015).
39. Pingwen Zhang and An-Chang Shi, Application of Self-consistent Field Theory to Self-Assembled Bilayer Membrane, Chinese Physics B, Vol. 24, No. 12, , (2015).
40. Qin Liang, Shiwei Ye, Pingwen Zhang and Je Z.Y. Chen, Rigid Linear Particles Confined on a Spherical Surface: Phase Diagram of Nematic Defect States, Journal of Chemical Physics, Vol. 141, No. 24, , (2014).
41. Weiquan Xu and Pingwen Zhang, Boundary Effects in Confined Copolymer System and Compressible

- SCFT Model, *Journal of Computational and Applied Mathematics*, , , 290-300, (2014).
42. Haoze Tan, Qi Liao and Pingwen Zhang, Conformation of Polyelectrolytes in Poor Solvents: Variational Approach and Quantitative Comparison with Scaling Predictions, *Journal of Chemical Physics*, Vol. 140, No. 19, , (2014).
 43. Hao Zhang, Kai Jiang and Pingwen Zhang, Dynamic Transition for Landau-Brazovskii Model, *Discrete and Continuous Dynamical Systems - Series B*, Vol. 19, No. 2, 607-627, (2014).
 44. Jie Xu and Pingwen Zhang, From Microscopic Theory to Macroscopic Theory - Symmetries and Order Parameters of Rigid Molecules, *Science China: Mathematics*, Vol. 57, No. 3, 443-468, (2014).
 45. Jinglong Zhu, Pingwen Zhang, Han Wang and Luigi Delle Site, Is There a Third Order Phase Transition for Supercritical Fluids?, *Journal of Chemical Physics*, Vol. 140, No. 1, , (2014).
 46. Kai Jiang and Pingwen Zhang, Numerical Methods for Quasicrystals, *Journal of Computational Physics*, , , 428-440, (2014).
 47. Hong Cheng and Pingwen Zhang, A Tensor Model for Liquid Crystals on a Spherical Surface, *SCIENCE CHINA Mathematics*, Vol. 56, No. 12, 2549-2559, (2013).
 48. Wei Wang, Pingwen Zhang and Zhifei Zhang, Well-Posedness of the Ericksen-Leslie System, *Archive for Rational Mechanics and Analysis*, Vol. 210, No. 3, 837-855, (2013).
 49. Kai Jiang, Chu Wang, Yunqing Huang and Pingwen Zhang, Discovery of New Metastable Patterns in Diblock Copolymers, *Communications in Computational Physics*, Vol. 14, No. 2, 443-460, (2013).
 50. Qin Liang, Jianfeng Li, Pingwen Zhang and Je Z.Y. Chen, Modified Diffusion Equation for the Wormlike-chain Statistics in Curvilinear Coordinates, *Journal of Chemical Physics*, Vol. 138, No. 24, , (2013).
 51. Wei Quan Xu, Kai Jiang, Pingwen Zhang and An-Chang Shi, A Strategy to Explore Stable and Metastable Ordered Phases of Block Copolymers, *Journal of Physical Chemistry B*, Vol. 117, No. 17, 5296-5405, (2013).
 52. Han Wang, Dan Hu and Pingwen Zhang, Measuring the Spontaneous Curvature of Bilayer Membranes by Molecular Dynamics Simulations, *Communications in Computational Physics*, Vol. 13, No. 4, 1093-1106, (2013).
 53. Gai Liu, Gang Du, Tiao Lu, Xiaoyan Liu, Pingwen Zhang and Xing Zhang, Simulation Study of Quasi-Ballistic Transport in Asymmetric DG-MOSFET by Directly Solving Boltzmann Transport Equation, *IEEE Transactions on Nanotechnology*, Vol. 12, No. 2, 168-173, (2013).
 54. Tiejun Li, Pingwen Zhang and Wei Zhang, Nucleation Rate Calculation for the Phase Transition of Diblock Copolymers under Stochastic Cahn-Hilliard Dynamics, *Multiscale Modeling & Simulation*, Vol. 11, No. 1, 385-409, (2013).
 55. Peiwen Ji, Song Jiang and Pingwen Zhang, Computable Modeling (Chinese), *SCIENCE CHINA Mathematics*, Vol. 42, No. 6, 1-18, (2012).
 56. Wei Zhang, Tiejun Li and Pingwen Zhang, Numerical Study for the Nucleation of One-Dimensional Stochastic Cahn-Hilliard Dynamics, *Communications in Mathematical Sciences*, Vol. 10, No. 4, 1105-1132, (2012).
 57. Wei Wang, Pingwen Zhang and Zhifei Zhang, Well-Posedness of Hydrodynamics on the Moving Elastic Surface, *Archive for Rational Mechanics and Analysis*, Vol. 206, No. 3, 953-995, (2012).
 58. Han Wang, Christof Schuette and Pingwen Zhang, Error estimate of short-range force calculation in inhomogeneous molecular systems, *Physical Review E*, Vol. 86, No. 2, , (2012).
 59. Han Wang, Pingwen Zhang and Christof Schuette, On the Numerical Accuracy of Ewald Smooth Particle Mesh Ewald and Staggered Mesh Ewald Methods for Correlated Molecular Systems, *Journal of Chemical Theory and Computation*, Vol. 8, No. 9, 3243-3256, (2012).
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